

GPS Terminal Installation Instructions

(V37)

Outline

1.1 Technical Specifications

1.1.1 The conditions of use:

- 1、A supply voltage: DC 9 ~ 32V (suitable for 12V or 24V battery, motor vehicle)
- 2、ambient temperature: -10 °C ~ +55 °C
- 3、Relative humidity: ≤ 90%
- 4、Atmospheric pressure: 86 ~ 106Kpa

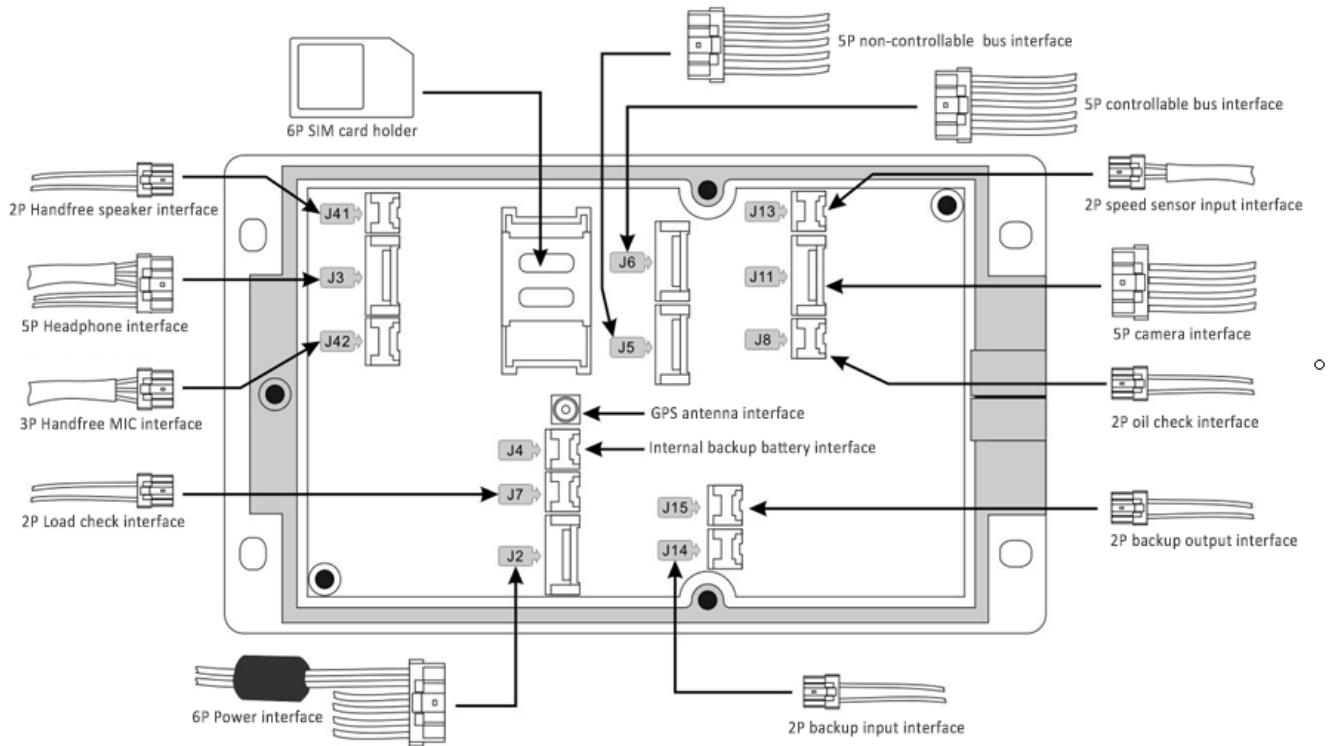
1.1.2 The appearance of

Host: 157mm * 90 mm * 40 mm



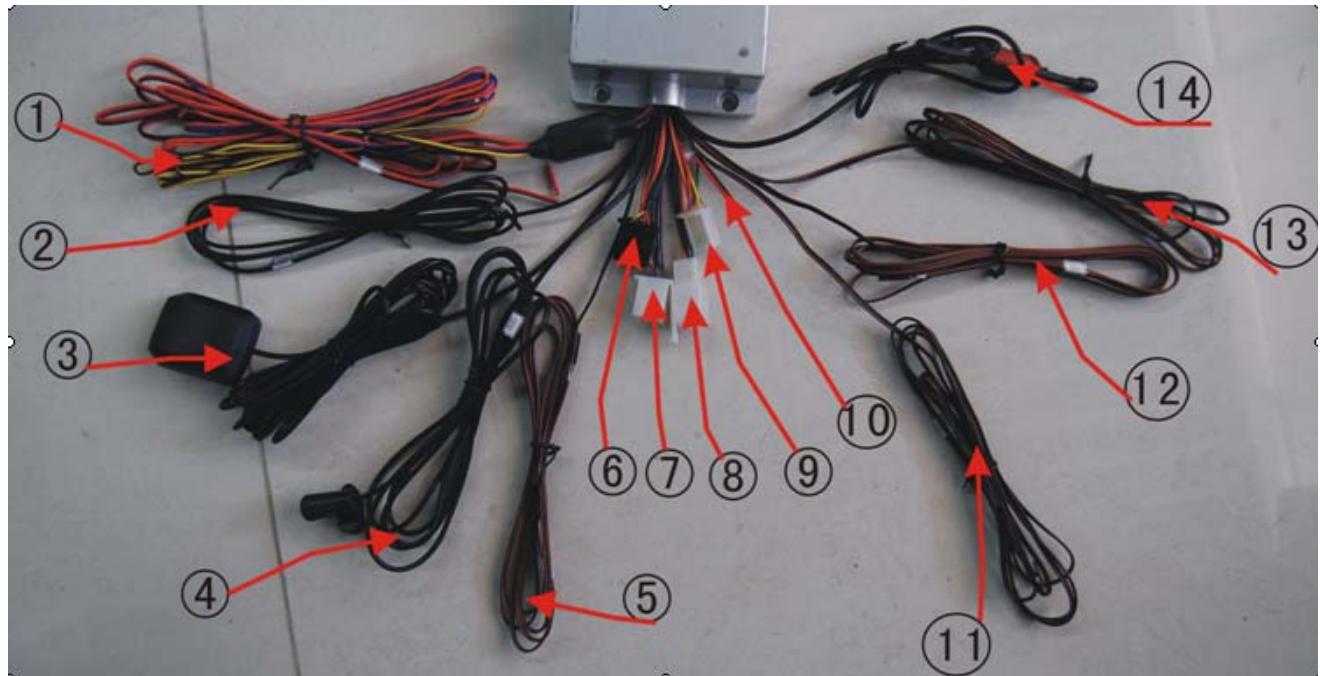
1.2 wiring diagram

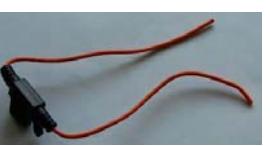
1.2.1 GPS terminal line wiring diagram



【Terminal connection diagram】

1.2.2 GPS terminal external wiring and accessories Figure



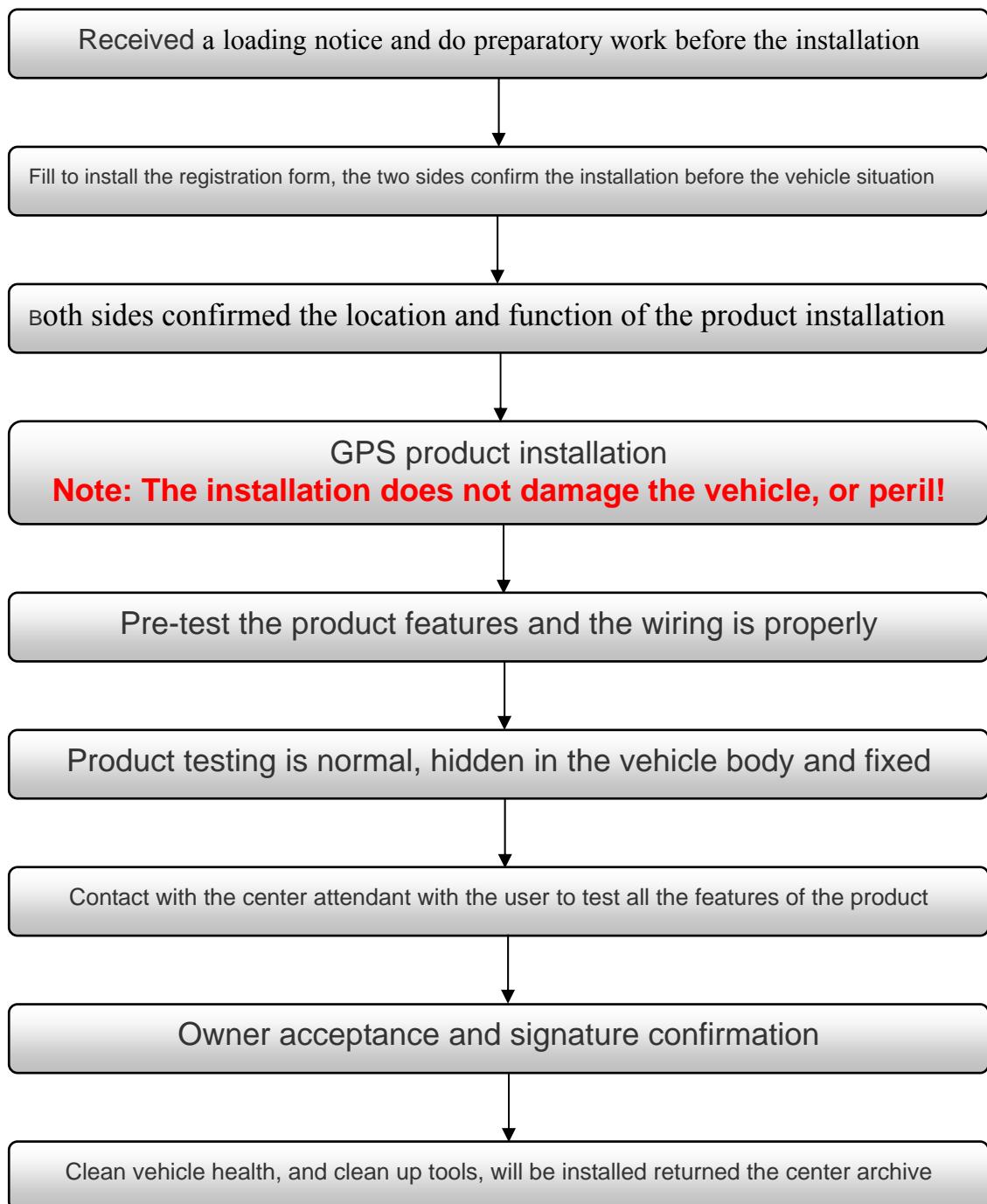
Serial number	Name	Line color	The wiring instructions (pick up at one end)
1	6-cell power bus	Red and black and line the red line (thick)	Vehicle positive power supply 
		Black line in the red and black and the line (thick)	Automotive power supply negative (Ground)
		Orange line in the orange and blue and the line	ACC line
		Orange and blue line blue line	Lock your car line 
		Yellow and black line yellow line	Then the alarm button (wire connected)
		Yellow and black line black line	
2	2 core speed sensor long-term	Green Line	Then the sensor (in the car-side)
		Obscured ground	
3	GPS antenna, long-term	Coaxial PVC cable	Antenna attached to the body on
4	3 core hands-free microphone long-term	3-core PVC wire	Microphone component loading
5	2-core oil enter the long-term	Brown lines in dark brown and line	Fuel input signal
		Dark brown and black lines in the line	Ground
6	5 core handles voice short-term	Yellow line	MIC-
		Brown Line	MIC+
		Orange Line	SPK- 

		Red line	SPK+
		Black line	Ground
7	Five core non-control data short-term	Purple Line	Ground
		Brown Line	Power supply
		Blue Line	CTC
		Green Line	RXD
		Red line	TXD
8	Controlled five core data short-term	Yellow line	Power supply
		Brown Line	Ground
		Blue Line	CTC
		Green Line	RXD
		Red line	TXD
9	4-pin camera head and the short-term	Orange Line	Power+
		Yellow line	Power-
		Brown Line	Perturbation of the head line A
		Red line	Perturbation of the head line B
10	2 core hands-free speaker short-term	The red line in the red and black and wire	SPK+
		Black line in the red and black and wire	SPK-
11	2 cores empty weight of the car detect long-term	Dark brown and brown line line	Signal input
		The dark brown and the black line	Ground
12	2-core signal to enter long-term	Dark brown and brown line line	Signal input
		The dark brown and the	Ground

		black line	
13	2-core signal output long-term	Dark brown and brown line line	Signal input
		The dark brown and the black line	Ground
14	GSM antenna long-term	Coaxial PVC cable	Antenna attached to the body on

2、the installation

2.1 Installation Steps



【Global positioning (GPS) system specification installation flow chart】

2.2 Installation of the preparatory work

2.2.1 installation preparation:

Tools: different models, the tools used to have a greater difference in the installation of GPS vehicle terminal, sufficient preparation, do not miss, so as not to affect the installation of speed and quality of the installation.

Installation documents and related procedures: no specific basis for each vehicle before installation to do the vehicle inspection, in order to avoid problems after installation, the cause is not clear responsibility of vehicle breakdown, so be sure to prepare to install the table in front of documents; communication of GPS products rely mainly on China Mobile or China Unicom, will need to get ready the user SIM card and SIM card account is opened, so as not to affect the normal opening of use.

Note: For special circumstances and not opening the SIM card of vehicles, the installation staff must use their own test card all the functional tests.

2.2.2 The product pre-installation check

Product installation engineering staff prior to installation to do a basic check (such as lights, brakes, ignition, anti-theft devices such as "GPS" install a variety of connections) were detected, do not have the conditions of inspection equipment is working properly , but at least to ensure that the installation of the model is entirely correct, but not missing any parts.

2.2.3 GPS users

Before installation to a clear understanding of the user loaded the model, product model and special requirements in order to do the appropriate pre-installation preparation, installation engineers to confirm fully capable of the installation tasks; while preparing for a good user's contact and the installation site.

2.2.3.1 complete the installation registration form, the two sides confirm the installation before the vehicle condition

2.2.3.1 installation to communicate with the user

To reach the installation site, do not hurry to install the vehicle, in addition to the recommendations to maintain communication with the user to understand the user requirements for the installation of GPS, the main requirements of the GPS function, but also to understand the user's vehicle usage, as well as the company mentioned. (Note: During the installation on the corresponding record should be ready)

2.2.3.2 installation before the vehicle inspection

Began to prepare to install the vehicle, first a basic check of the vehicle, the first to confirm the vehicle the appearance of injuries or damage to, and will need to be marked, followed by the basic application of the vehicle's audio and air conditioning systems, lighting and so on is normal, and then start the engine, hear no abnormal sound and look at the dash light work of, if not normal should be marked. The last signature to confirm with the user (this process is usually five minutes)

Note: For special circumstances and not opening the SIM card of vehicles, the installation staff must use their own test card all the functional tests for users without the presence of vehicles, personnel should be given on behalf of signature confirmation

2.2.3.3 Both sides confirmed the location and function of the product installation

2.2.3.4 install before the product model confirmed

GPS products before installation, different types of products its function, the understanding of the general users of GPS products is not deep enough, the installation works before installation of product features through the user needs to finalize the installation of the product the user demand for products, in order to avoid rework or causing user dissatisfaction.

2.2.3.5 Pre-installation equipment installation location to confirm

For most users, the use of vehicles is very concerned about, prior to installation are generally more worried about damage to their vehicles and resulted in the use of vehicles, in order to eliminate this unnecessary fear of the user's installation engineers can install the product seek the views of users, and then suggested to the user to the correctness of our methods of operation and necessity.

2.3 GPS product installation

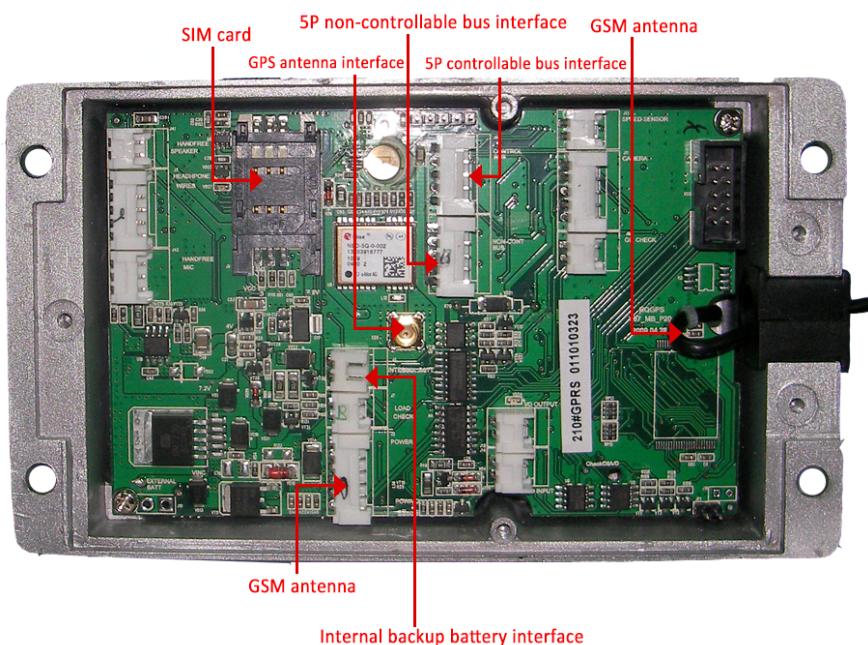
2.3.1 Accessories Harness confirm

Open the GPS packaging and wiring harness, and confirm that the following wiring harness:

- (1) 6pin power connector short-term
- (2) non-controllable 5pin to connect short-term
- (3) 5pin controlled to connect the short-term (with phone)
- (4) the 5pin audio connections short-term (with phone)
- (5) 3pin hands-free microphone line (with phone)
- (6) the 2pin hands-free speaker connection short-term (with phone)
- (7) car handle and two handle data line
- (8) GPS antenna

2.3.2 the SIM card installation

Unscrew the five screws under the cover with a screwdriver, and then opened under cover; as shown below



【GPS terminal line physical map】

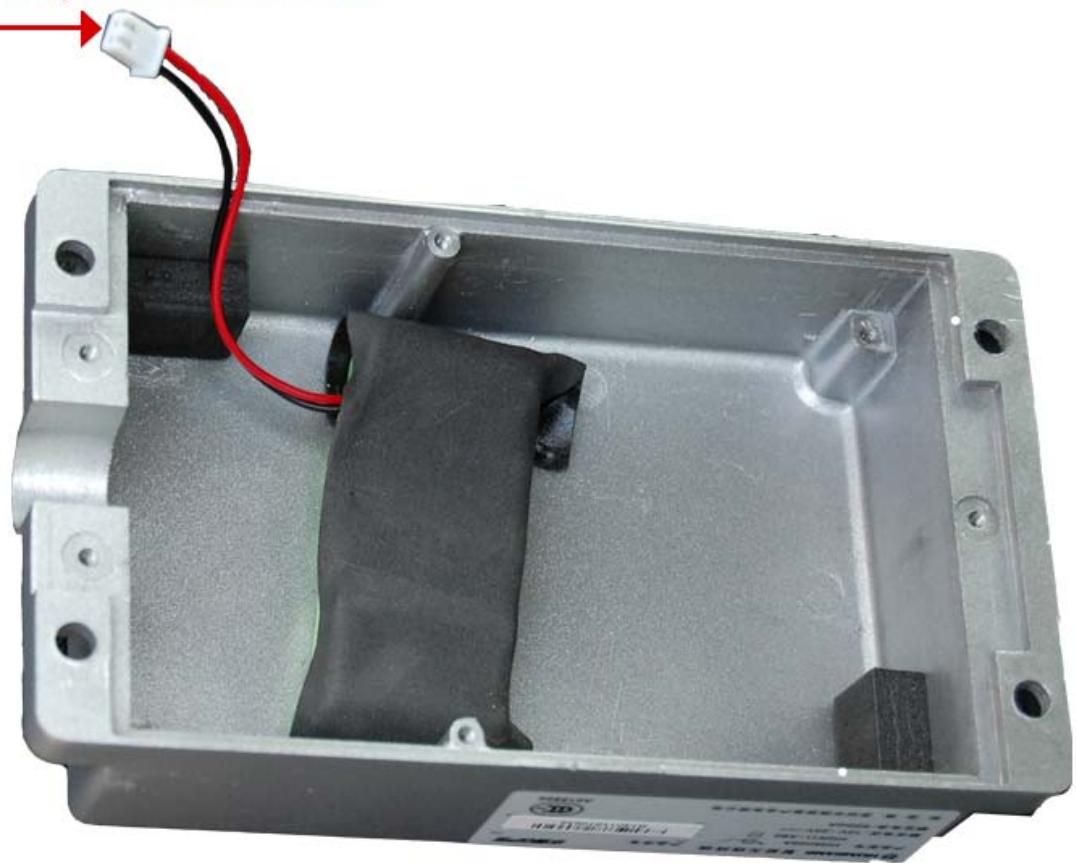
To open the SIM card connector, SIM card is inserted, such as deck, and then close the deck fastened to;



2.3.3 The back-up battery installation:

The motherboard screws to unscrew the motherboard out of a spare battery in place a host box, as shown: Interface directly V37 terminal J4 interface.

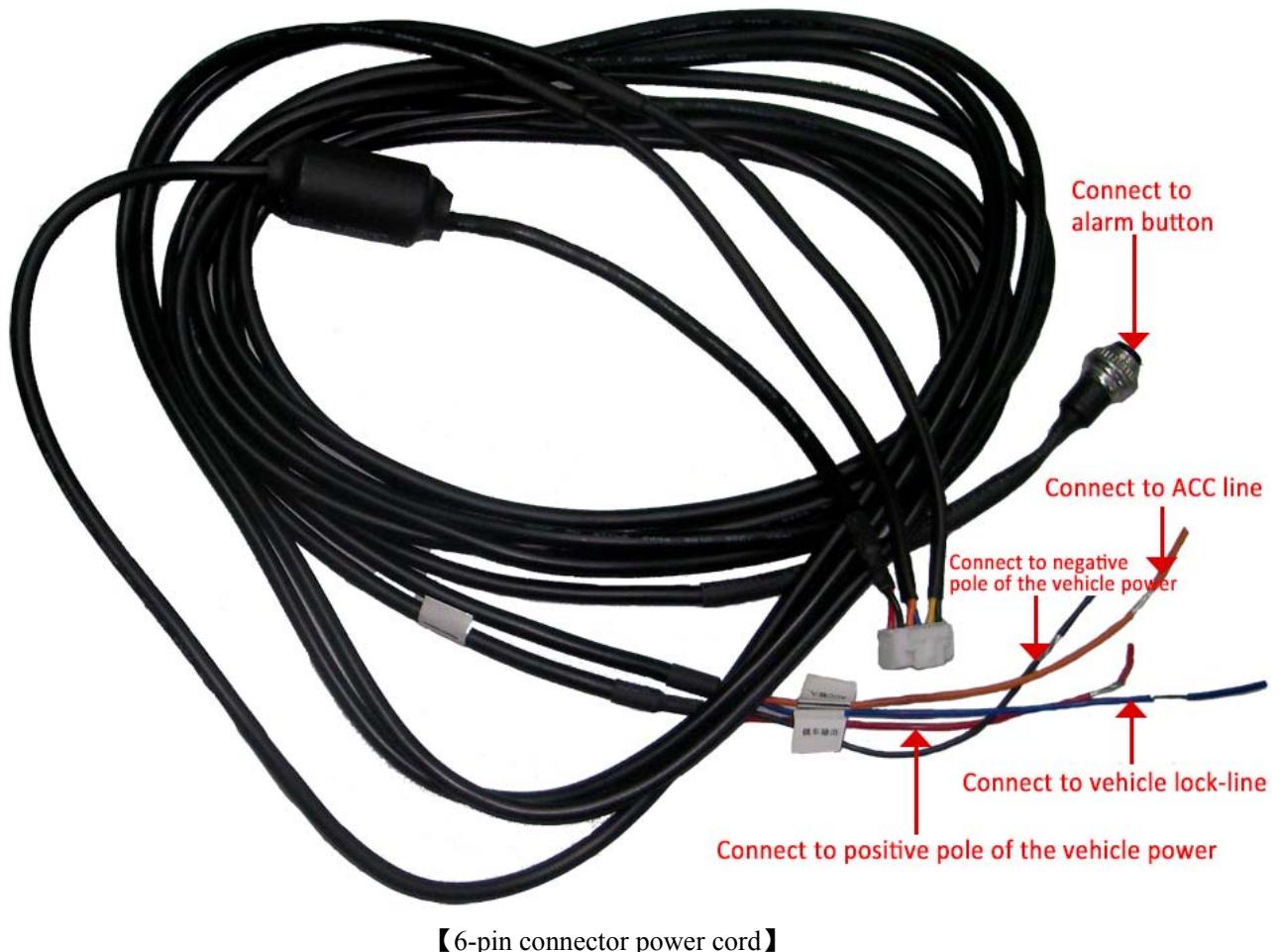
Connect to port J4 of V37 terminal



【Backup battery installation diagram】

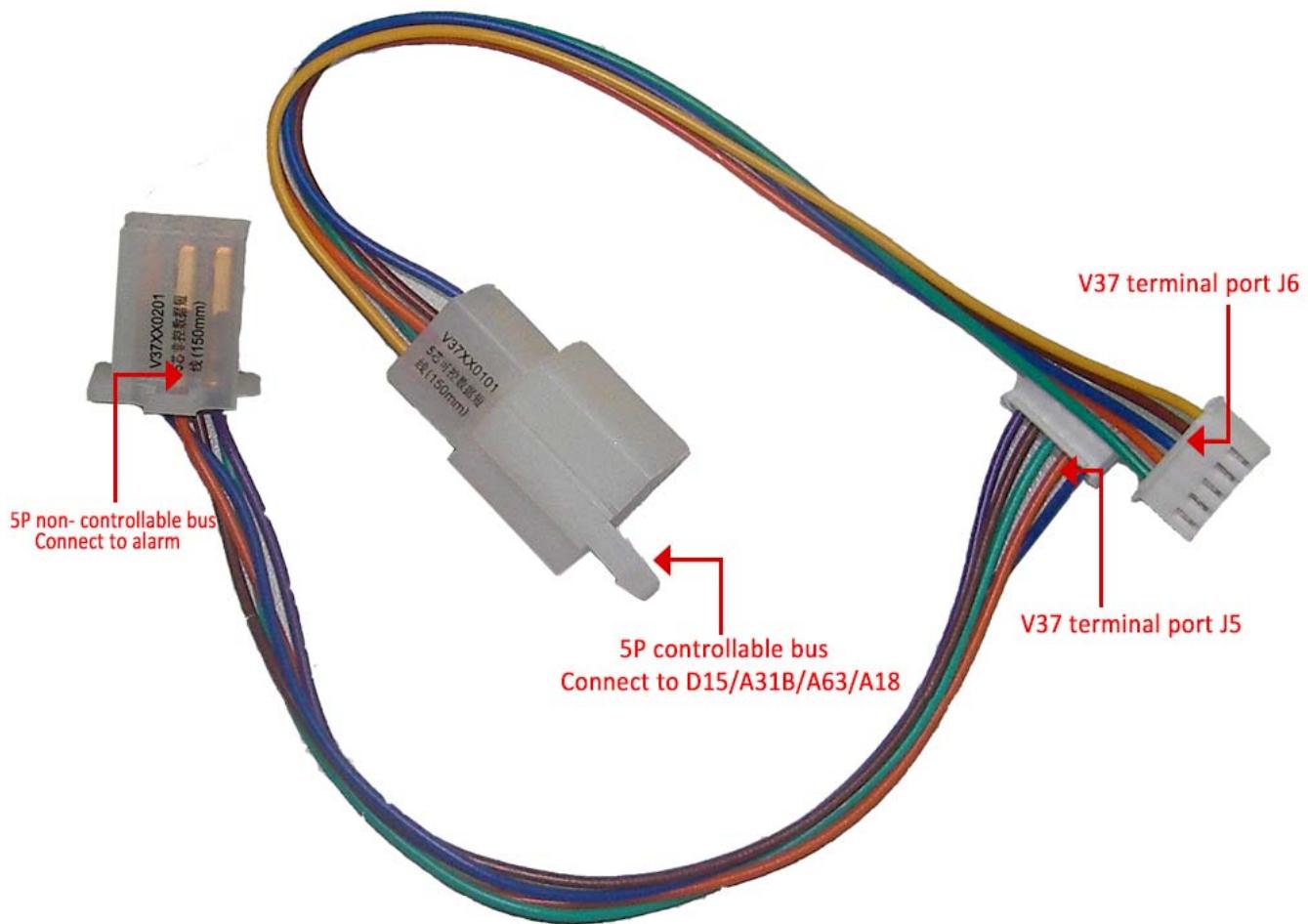
2.3.4 power line installation diagram

1. See Figure 1, red line - then the auto power input positive;
- Black line - then the car power input negative;
- Orange line - pick ACC line;
- Blue line - pick a car lock car line;
- Yellow and black lines - then the alarm button



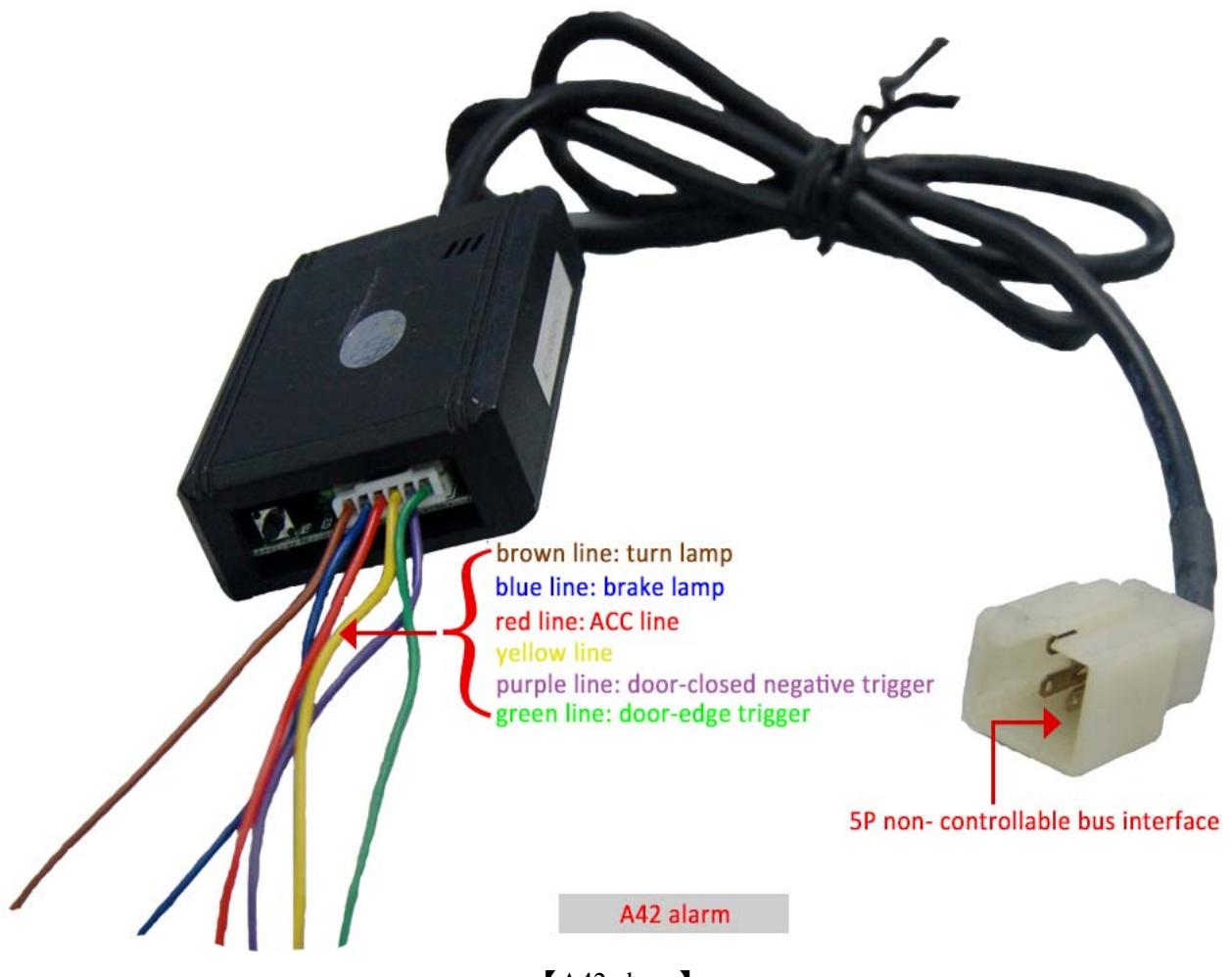
2.3.5 alarm line installation diagram

The five core non-control data line connected alarm, 5-pin connector then a V37 terminal J5 interface, as shown

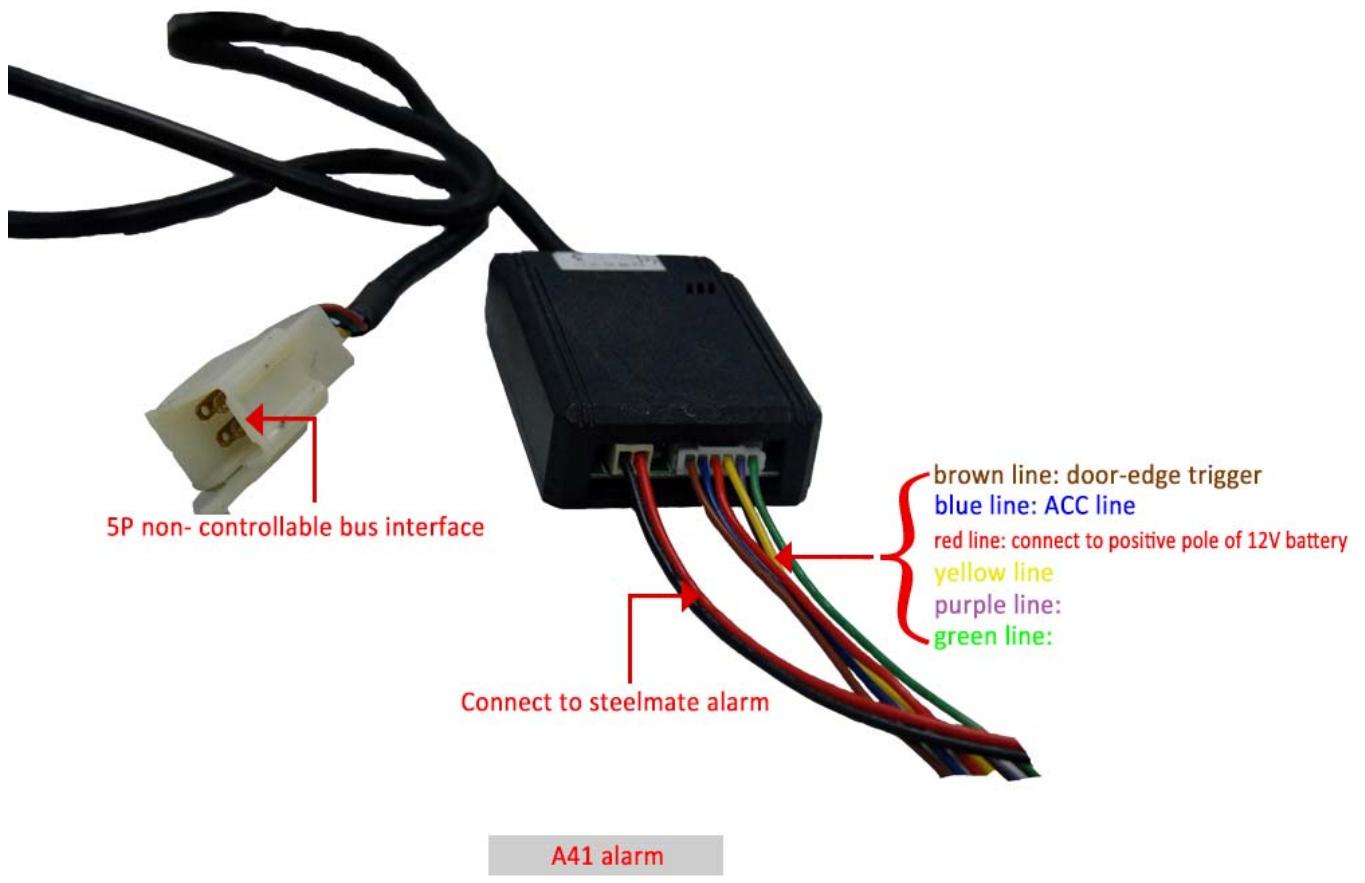


【Five core non-control data lines and 5 core controllable data cable】

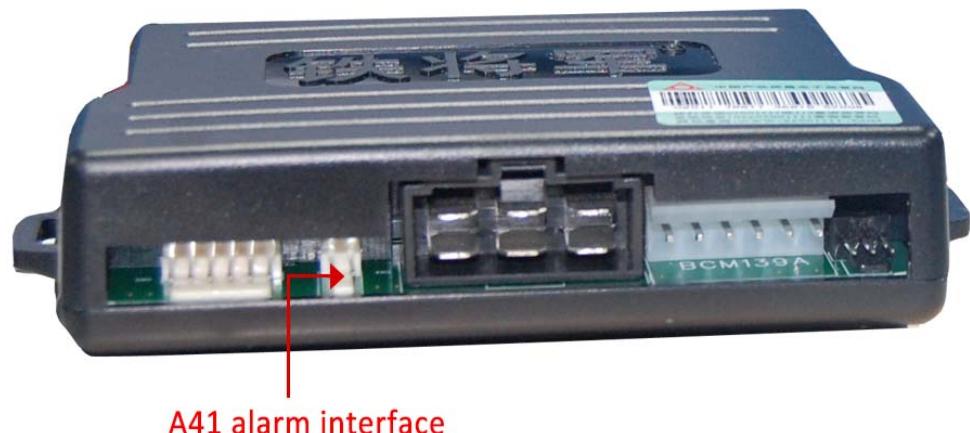
The alarm is divided into two kinds, if cars compatible with alarm function, no need to take iron general alarm, then the A42 alarm interface to the wiring diagram in Figure shown,



If the car is not compatible with the alarm function, shall be through the A41 then the iron general alarm wiring diagram as shown:

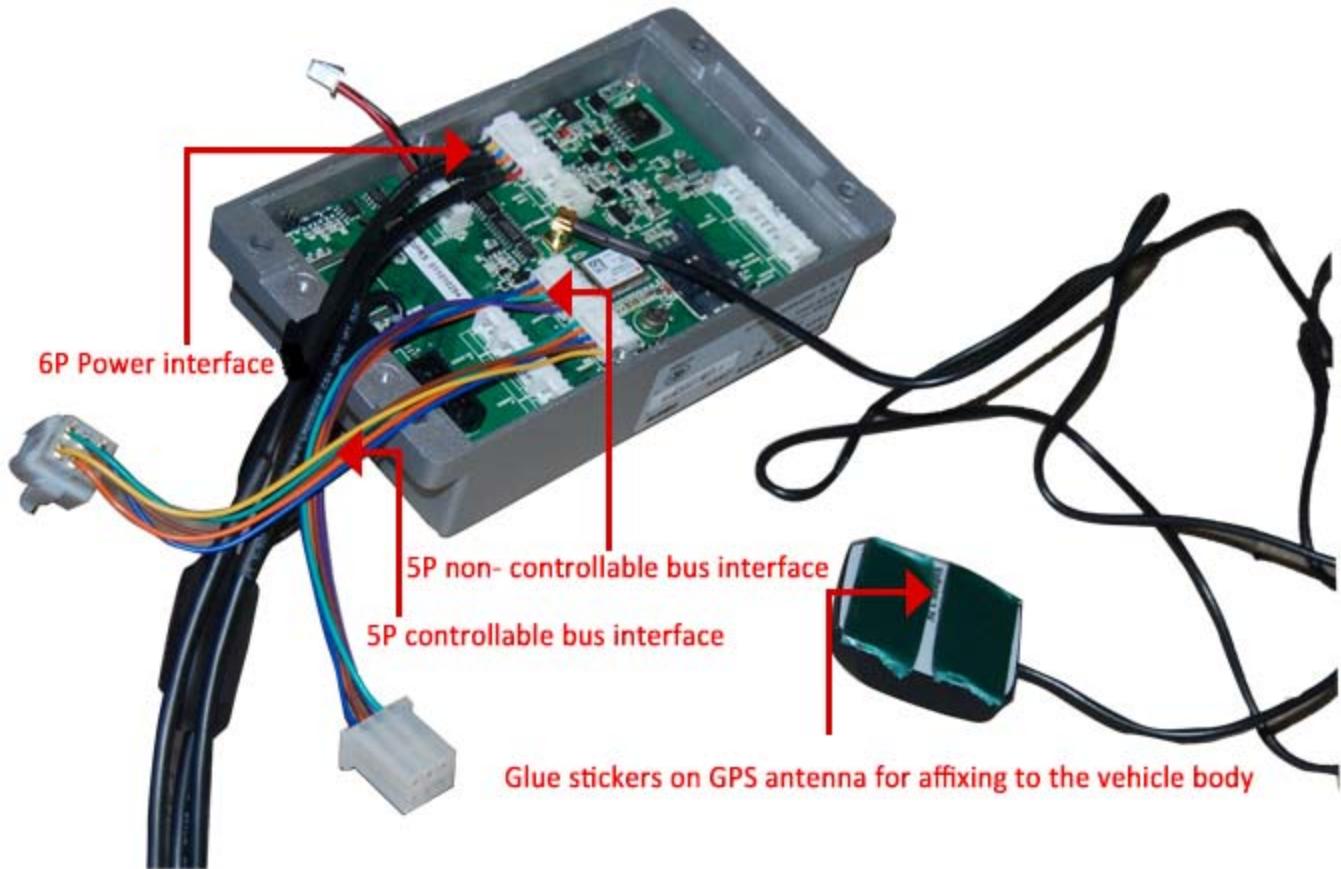


【A41 alarm】



【Iron General】

Note: The Iron General specific installation instructions, see the instructions!



【V37 renderings after the installation of the terminal line】

2.4 GPS host loading steps

2.4.1 installed products before the demolition of the body (BYD F6 models, for example)

BYD F6 car is not installed before the picture, as shown



【BYD is not installed on the GPS before the picture】

Disassemble the body door pedals, as shown



【After removal of the door pedal schematic】

Open car set square, as shown:



【After the removal of car set square schematic】

The original plastic tube with a utility knife cut open, exposing the colorful line of the original car, as shown:



【Schematic of the original car lines】

2.4.2 GPS host and anti-theft products in the fixed position;

According to the installation location of the different types of models, the GPS host and anti-theft products are not the same, depending on the car and the actual situation, but noted the following:

A and not near the water and ease of the leak, the relative installation position of the vehicle environment, as high as possible;

B, close to the place of the vibration too, though our products have been the vibration experiments, has good vibration resistance, but if you give the equipment to provide a better working environment, their life will be longer.

C、Not close to the easy friction in order to avoid the circuit open or short circuit;

D and try to avoid hot places, in high temperature environment for a long time, some impact on the normal working of the GPS host;

E, can not affect the normal operation of machinery of the car.

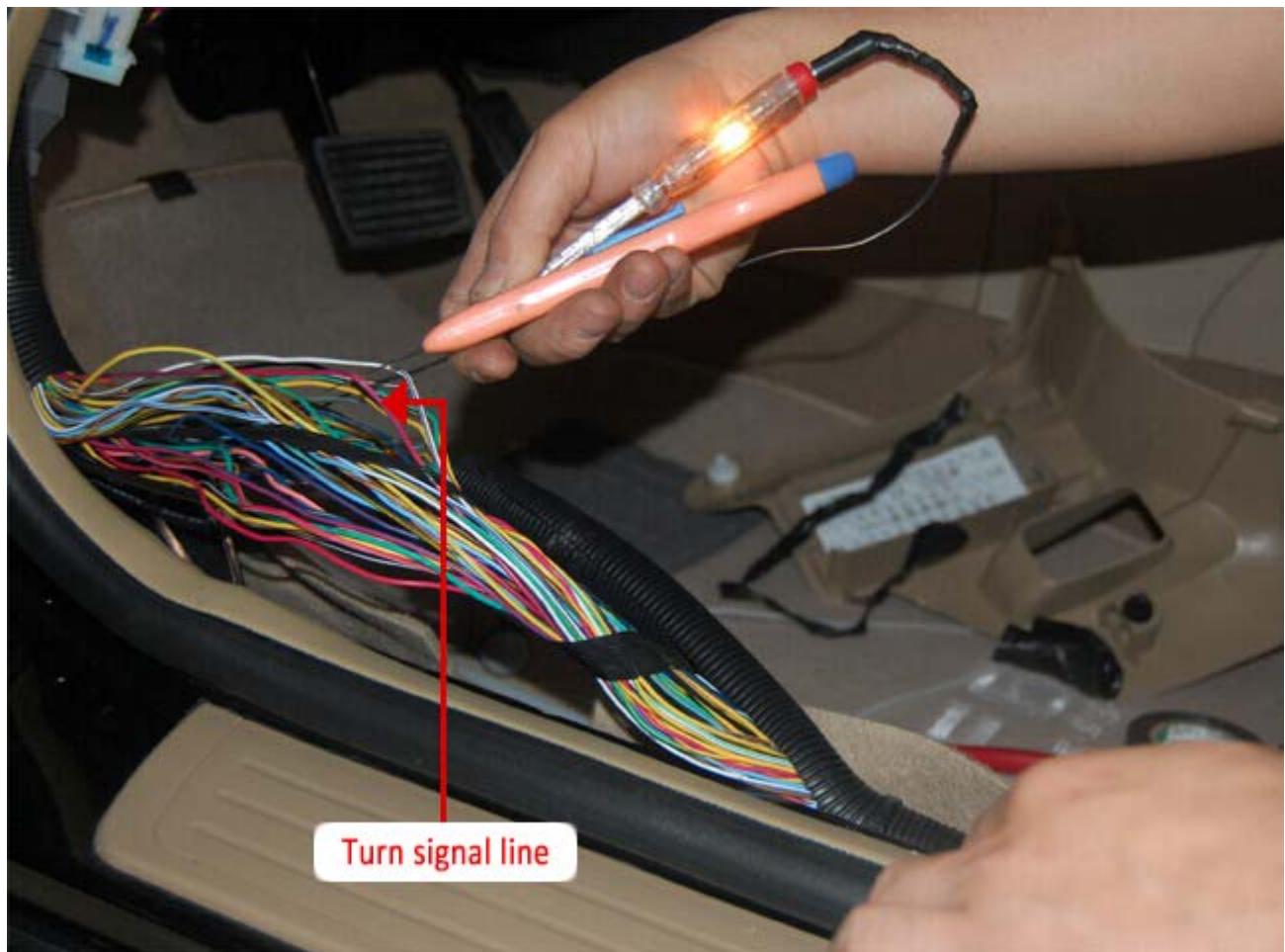
GPS host stick with Velcro stick from under the tailgate before the driving sit steady, destined to a fixed stable host in order to reduce vibration. Loading position as shown:



【GPS host placement】

2.4.3 steering lights wiring

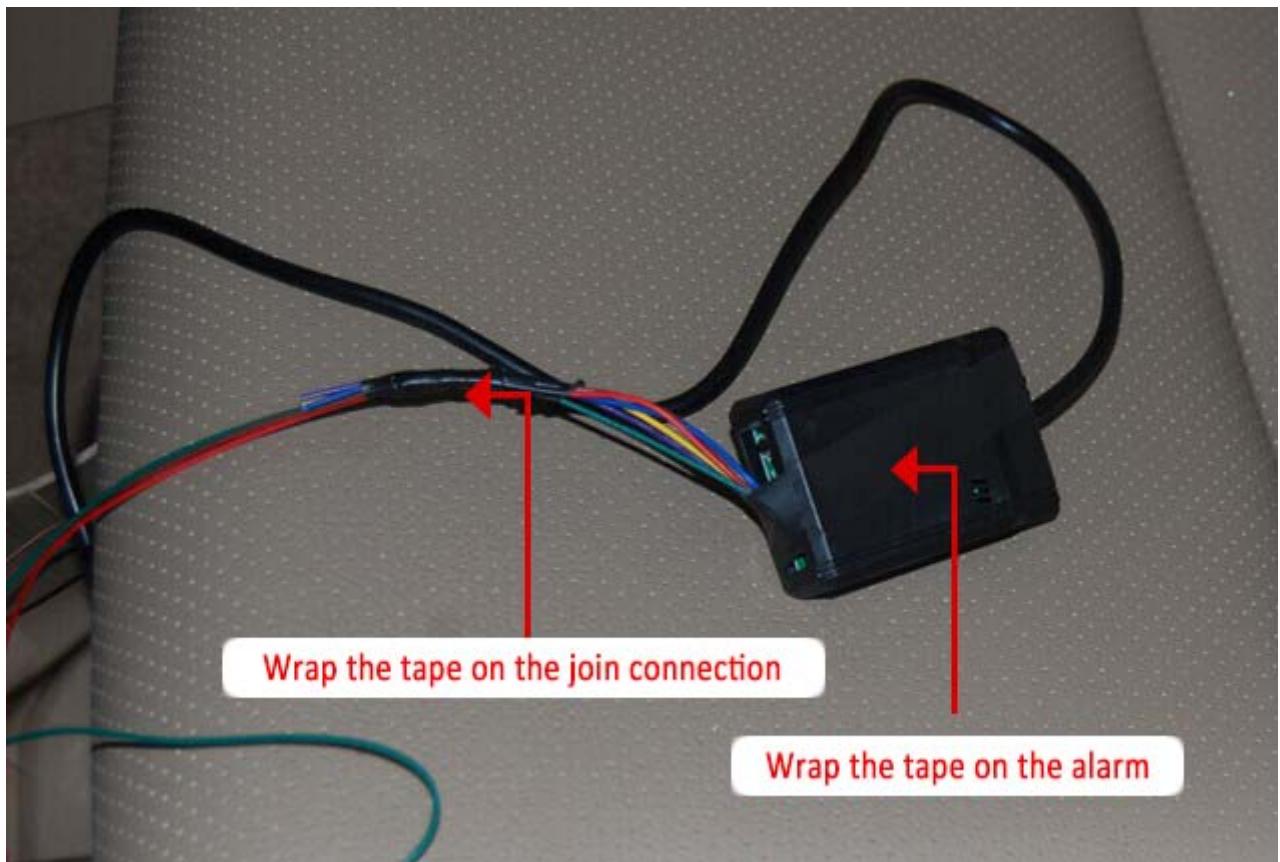
Knife open body of emergency lights, electric pen, contact the utility knife from right to left with tools to break the original line plastic skin test to find the turn signal line, flashed on the electric pen test for the turn signal circuit. Brown turned to the light line and the A42 alarm line docking.



【Vehicle turn signal line】

2.4.4 Alarm installation

Alarm connect the GPS host line see 2.3.3 alarm circuit description.

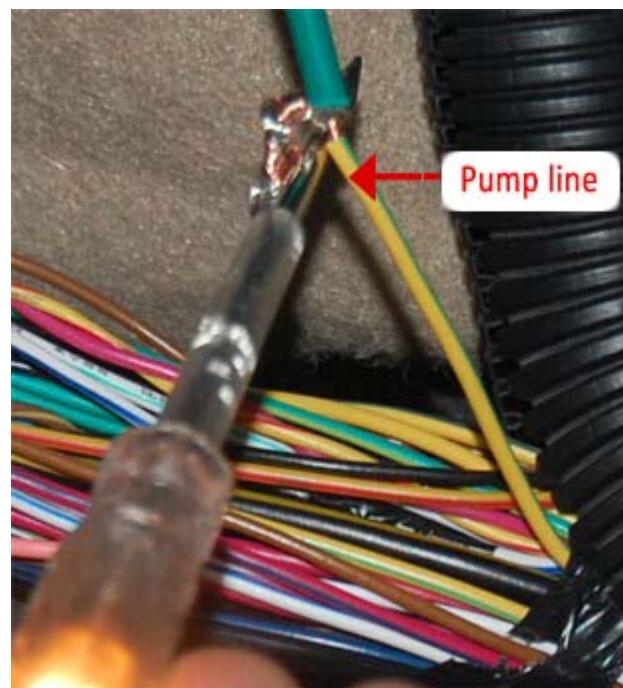


【Alarm circuit wiring】

Alarm host to be wrapped in black tape, first, to prevent the fall of the motherboard, and second fixed-line, to prevent disconnect. The bandaged placed apart of the set square.

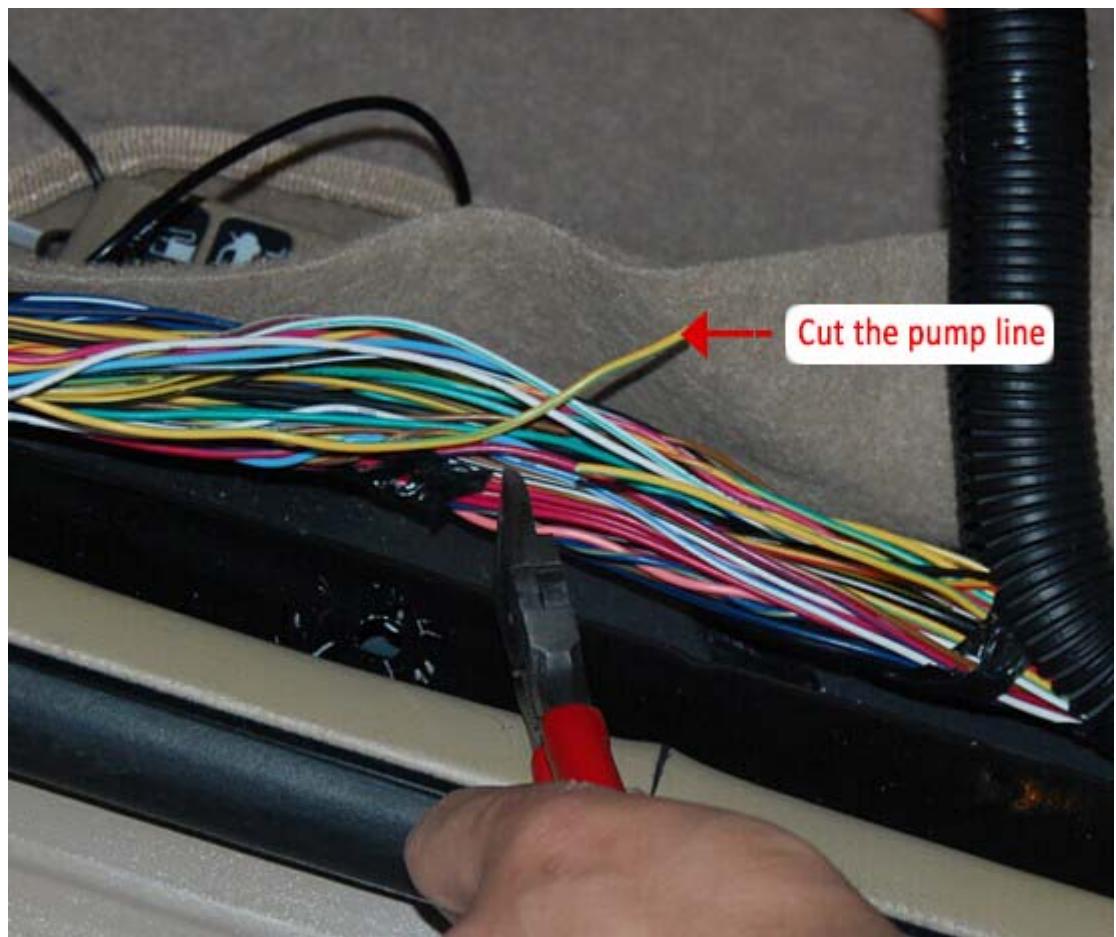
2.4.5 Off Power and off oil

First find the pump line, the car transferred to ON stalls, electric pen, plus tools knife broken lines epidermis, when the electric pen light 3 seconds after extinguishing line is the pump line.

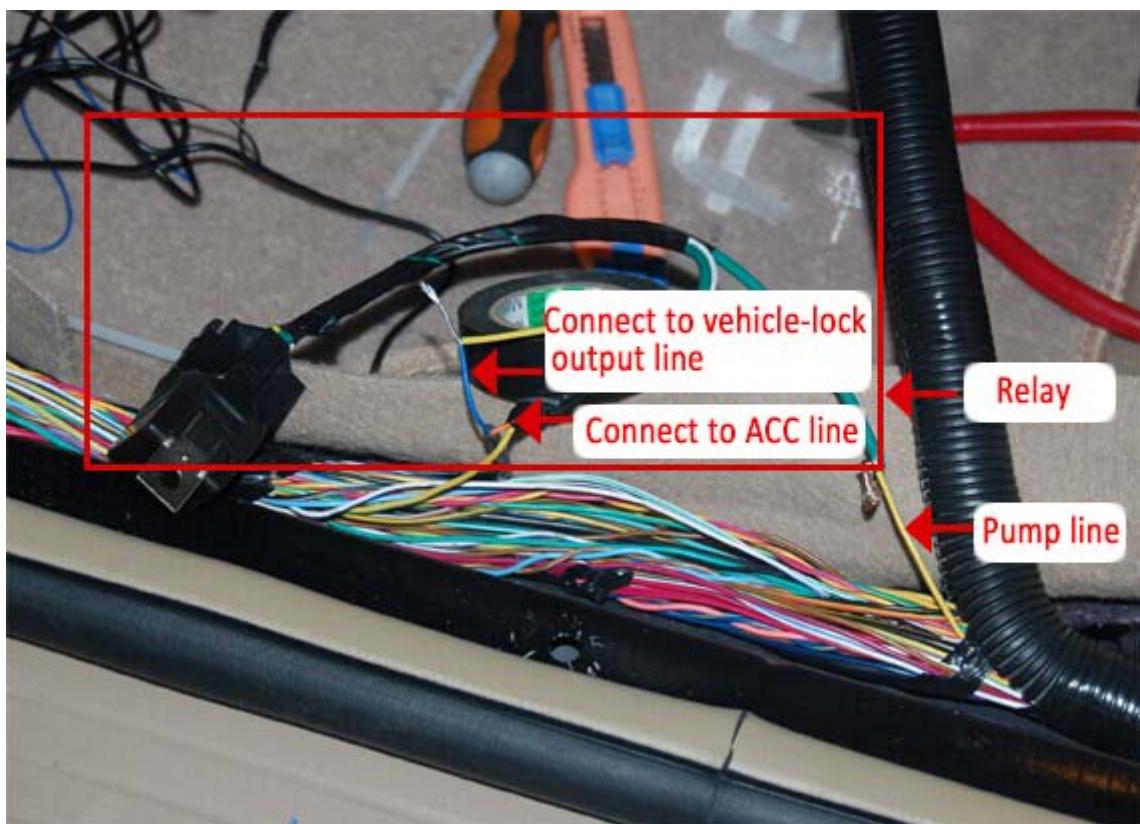


【Pump line】

Cut the pump line connected to the relay,



【Cut pump line】



【Relay butt pump line】

Among them, the yellow line and docking in the relay GPS host core power bus orange and blue line blue line, as shown above. The vehicle an exception occurs, the line of control to remotely control the vehicle lock your car, all the lines connected to restore into its original state after the driving bit below the carpet covering the relay. As shown below



【Relay placed】

2.4.6 The GPS host to start

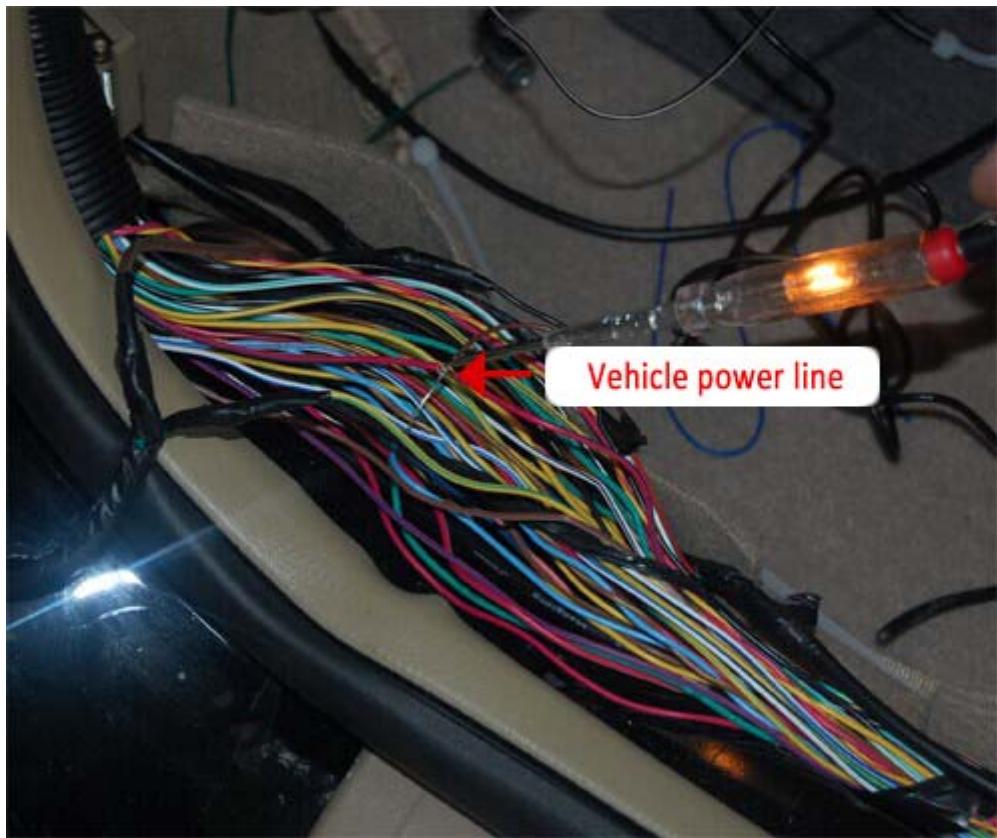
ACC line for the first tranche of the ignition switch, twist the key to align the first gear, electric pen and electricity, close to the conductance did not pass the line for the ACC line. ACC line connected to the Orange Line 6-cell power bus orange and blue lines in the host. When the car starts the moment, the car itself ACC line to the GPS host current, the car starts, the GPS host began to work.



Note: the ACC line itself is a car available to the supply line of the body other accessories, to play ACC files, the car to the subsidiary supplies a current GPS host is to work. When the car is ON file, all the lines of the car began to supply the car motor running when transferred to the st file.

2.4.7 GPS host power connection

Find car power cord, electric pen, the original wiring harness of the test vehicle, when the electric pen Always when compared to automobile power cord. As shown below:



【Test of the power cord】

Car power cord is level connected to one end of the insurance thread the other end connected to the GPS host the red line in the red and black 6-cell power bus and line. The black line in the red and black 6-cell power bus and line power supply vehicle ground. Different definitions of the model ground, but the car body are ground, so in the case did not find the original car ground can be connected to the car body. As shown below:



【Fuse holder line】

2.4.8 Illegal door alarm installation

Open the door when the electric pen display power, when closed, the electric pen, no electricity, compared to the door line. The green line of the wicket line and the A42 alarm connection. Alarms alarm when the door is illegal to open the door line touches.

Note: the line of the tread at the foot of the side door above the door line, find the door line is generally above the door to find.

2.4.9 Panic button to install

Panic button if the owner has no special requirements, generally mounted below the steering wheel. As shown:



2.4.10 The GPS antenna installation

- 1) (4m) to the level of GPS antenna on the right side of the high automatic lights in the middle of the windscreen or on the left side of the rear bumper internal;
- 2) for the block of glass, explosion-proof solar film car after no GPS antenna hidden in the post-block below the glass plaque will be fixed;
- 3) The windshield is equipped with explosion-proof solar film car, as far as possible the level of GPS antenna mounted on the front or rear bumper internal;
- 4) fasten the GPS antenna cable.



Not too tight spiral or twist the excess wire, the aggravation of receiving satellite information and ensure that the GPS antenna placement, level of attention to moisture and hidden disadvantages of the antenna.

2.4.11 The GSM antenna installation

- 1) internally decorated in the car steering wheel cover to find a non-metallic objects will be fixed;
- 2) Installing the GSM antenna, be careful not to be fixed on the surface of the metal, it will weaken the GSM signal reception.

Note: The GPS system is installed, the host, GSM antenna, hands-free microphone, alarm button, independent car phone need to install and maintain a certain distance so as not to affect the call effect.

2.4.12 system initialization

- 1) Open the V37 host bottom cover;
- 2) Connect a good host on the GSM antenna, GPS antenna, speakerphone the MIC, the alarm button, the handle.
- 3) Make sure that all electrical wiring harness has a secure connection to complete, all systems plug the pieces have the right connection, system initialization test;
- 4) "Please wait" until send the login is successful;
- 5) in the state of the ignition switch, wait for the precise positioning of signs, this process can take up to 15 minutes.
- 6) to confirm the work of the V37 host has normal power, the V37 terminal within the built-in battery connection to the host PCB board.
- 7) V37 host to confirm working properly, you can install the host bottom cover, and then installed in the host hidden inside the car dashboard, plus Velcro secured.

2.4.13 GPS and anti-theft products harness the processing and routing;

A、With the installation of GPS products and anti-theft system or the respective stand-alone installation, installation practices, Huaqiang GPS only allows the existence of a wiring harness, this is mainly to enhance product performance and product stability in the actual due in ; to further improve the ability of the vandal; reduce to a minimum impact on the original car circuit; standardized to simplify the installation of the necessary conditions.

B、as far as possible along the original vehicle wiring harness wiring, because the original car harness wiring are generally multi-faceted security taking into account the wiring harness along the original vehicle wiring harness wiring installation of the wiring harness to the best alignment.



【Dressing all lines】



【Host after the installation, wiring diagrams restitution】

Find the sense of connection with the GPS wiring harness of the body line

A、To find the original car harness, depending on the line, have different requirements, installation engineers need to understand the basic car line works, but also to spend more to learn, accumulate more experience, more than with other technical staff exchange.

B、for harnesses Find requirements, different models have been the difference between now introduce some commonly used to find line:

(1)、and often the power cord:

From the ignition switch control, through the main power line of the car battery can be called a regular power cord. Often the power cord body to be assigned to the various appliances, such as: air conditioning, stereo, ignition switch, starter motor, charging circuit, indoor lighting, etc., but also through the branch line relay or control integrated (ECU) to distinguish ; So we find the wiring harness may find a lot of regular power cord when the application period of time or a specific condition does not hold, and often the power supply into power, if you find a line is improperly installed, which will affect the normal operation of our equipment. Therefore, we must learn to distinguish between which line is the most stable of regular power supply. Generally speaking, the ignition switch often power most vulnerable to find, but also very stable, so to find a regular source wiring harness, it is recommended to find a regular power supply on the ignition switch, the color is different because of different models.



Ignition switch

(2)、ACC line:

ACC for the first tranche of the ignition switch, ACC, ON, ST, and so forth are engraved on the general model of the ignition switch, twist the key to align the ACC, that is, electricity, turn off that no conductance through the line for the ACC line . ACC line controlled by the ignition switch, so there are many models of the ACC line by controlling the integrated control (ECU), ECU control line is relatively less stable, even if it is to turn off the ignition switch state may a few volts, thus affecting the normal operation of equipment. In order to facilitate the installation and practical, it is recommended to find lines in the ignition switch is relatively very stable.

(3) off the oil line: power off the oil line taking into account the safety aspects, mainly the tandem pump circuit relay. The pump line is different from other lines to find there are some differences, (EFI) EFI system models, check the fuel pump, when you turn the ignition switch to the ON will pump, depending on the model pump for about 1 to 5 seconds. Pump power cord will have a pulse feeling, and then immediately disconnected, start the engine, this line will have been supply; supply pump power, so this line is not too small, but this line does not repeat can be found in the body harness. EFI EFI system models for the most common models.

2.4.14 Automotive trim installation recovery;

Accessories should be noted that prior to demolition demolition order Replace should be demolished in the reverse order to install the fasteners removed, should be properly received, not the legacy of fasteners, After the installation you want to check their appearance. recovery is intact.

3、The terminal set test:

3.1 terminal parameter settings

【Note: during the parameter setting, enter the required input, press the "answer key" or "OK" to confirm】

A. Set the unit number (if required)

handle shows "Please enter the books your phone number, enter * 0 * XXXXXXXXXXXX, # where X is the need to set the machine number, if you set successfully handle the prompt" setting, complete the settings of your phone number, and then handle input * 9901 # to see the number of native settings are correct, if correct, do B, otherwise repeat the above operation until correct.

B. Set the center number (if required)

V37 terminal default center number of "empty" if you need to change the center number, the operation of this step. Please enter the * 1 * XXXXXXXXXXXX, #, where X is the need to set the center number, if successfully set, the handle is then prompted to "Settings", and completion of the center number is set, and then through the handle, enter * 9901 # to see your phone number is set correctly, if correct, perform the C, otherwise repeat the above operation until correct. Note: This center is mainly used for the terminal and central SMS communications

C. Set the IP address (if needed)

First you must enter * 7 * 0 # to view the correct IP address on the handle, if properly perform the D Otherwise, the

handle input * 7 the * 1XXXXXXXXXXXX # where X is the IP address, if successfully set, the handle is prompted "Set" to complete the IP address settings, and then through the handle input * 7 * 0 # to view the IP address is set correctly, if correct, the implementation of D, otherwise repeat the above operation until correct.

.D. Set the port (if required)

First you must enter on the handle * 7 * 0 # to see if the port is correct, if properly perform the E, otherwise the handle input * 7 the * 2XXXXXXXXX #, where X is the port number, if successfully set, the handle is prompted set, to complete the port settings, and then through the handle input * 7 * 0 # View port settings are correct, if correct, the implementation of E, otherwise repeat the above procedure until correct.

E. Set the APN (if needed)

First you must enter * 9907 # on the handle, view the APN correctly, if the right is executed, otherwise, enter on the handle * 7 * 3XXXXXXXXX #, where X is the APN, if the set is successful, the handle is then prompted to "setting" to complete the APN settings, then view the APN is set correctly handle input * 9907 #, if correct, then start the test, otherwise repeat the above procedure until correct.

3.2 Terminal functional test

G. Testing GPS is working properly

First make sure the GPS antenna is installed, the antenna location can be a good GPS signal, make sure the positioning status display on the handle for precise positioning;

H. Test GPRS is working properly

First make sure the GPRS antenna is installed, the antenna position can well accept the GPRS signal, in the view the GPRS signal strength on the handle, to confirm that you can use, or the need to re-confirm the antenna installation location. Test GPRS functionality: Make sure your phone number, IP address, port number, the APN is set correctly, if confirmed, you can enter on the handle * 6 * 1 # * 9 * # input on the handle can view the work status, if the handle "GPRS" into the GPRS status, to handle the "LINK" is dial-up, need to wait handle "GSM", said terminal in the SMS status.

[Note: If there is no opening of the GPRS function of the SIM during this operation is not valid, so the need to confirm the SIM card provided by the newly installed equipment has opened GPRS functionality.

I. Login Test:

Setup is complete and confirm that all the parameters correctly, re-power to the terminal, to see whether the terminal upload

J. Panic test

Press the Panic button 2s bell, handle display "?" When information is sent after the success of the handle by "?" To "!" Test to confirm whether the Centre received the information of the robbery police, if received, the call center to lift the alarm If not, check the parameters are set correctly.

K. Locate the query test:

Prompted by the * 9 * Check the state set various parameters in the GPS terminal and the "GPRS status" may be issued in the background software timing monitoring (ie, the time interval set by the number of upload), single roll call always end monitoring command to locate the terminal equipment query operation, the location information should be returned to the current location of the terminal.

L. Off-grid test

Close the ACC, and handle input * # 49 # *, when the handle is no display, indicating that the terminal has entered the sleep mode, to confirm whether information received off-grid. If the test terminal is automatically off-grid, you need to close the ACC 10 minutes (the default can be changed through the center) and no alarm in order to enter the power-saving state.

4、Installation and maintenance precautions

Terminal installation and maintenance by specialized personnel, Users may not disassemble the terminal link cable and open the car terminal cover, so as not to cause damage to the terminal:

Avoid scrubbing with corrosive liquids terminal surface to avoid damage to the terminal appearance;

Note terminals waterproof, oil. Do not let water or oil to flow along the wire or antenna of the host the host to go inside, this will cause the host burned or even scrapped.

The correct wiring of the power cord, ground wire, ACC line, power line to take over insurance. The supply voltage must comply with the requirements of the technical parameters in the manual, or likely to cause terminal damage or not working properly.

Must connect on other ports (eg: switch the gate line, oil test line, etc.) are installed in the connection is completed in order to end power.

Avoid the terminal long-term work in a hot environment, or easy to make terminal life shortening;

The cathode Ground vehicles must ensure that the vehicle terminal and all its parts and the body is fully insulated.

GPS antenna is placed to the right, not surrounded by metal objects block.

Note that the speaker must be fixed, the best speaker on the brakes, throttle and nearby, once the speaker loose drop affect drivers' normal driving is likely an accident, the headphone cable should not be placed near the hand brake, etc., so as not to affect the driver operated.

Welding operation of the vehicle, you must let the GPS terminal is completely powered down in order to carry out welding operations, or easily damaged terminal.

4.1 Terminal fault repair guide

Troubleshooting Table

Failure phenomenon	Cause of the malfunction
1. positioning system vehicle after the installation without a precise positioning	1. GPS antenna by shielding 2 .The GPS antenna is not properly installed 3. The vehicle is too close to groups of buildings or bridges
2. can not upload the location data, issued by the Information	1. GSM antenna failure 2. Failure of the SIM card or SIM card user has shut down 3 .The SIM card number is not set correctly or IP settings are incorrect, leading to a terminal logged in successfully. 4 GSM module failure
3. LCD screen there will be intermittent power outages	1 Power connection is good 2 LCD screen failure 3 The GPRS host or GSM module failure
4. Equipment after the installation without any indication	1 Power fuse 2 Power line wiring fault 3 GPRS host failure
5. Car phone when using a lot of noise	1 GSM antenna is not positioned correctly 2 Speakers away from the microphone too close to
6. Monitoring software prompts the terminal bus failures	1 LCD display, said inspection, voice, camera cable loose
7. GPS host indicator does not light or	GPS host failure

Always	
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4.2 Common Problems and their Causes

1. Installed correctly GPS terminal host key is to pay attention to?

(1) to ensure that the host waterproof, anti-oil pollution, once into the water, maintenance will be very troublesome.

(2) GPS antenna is installed in the best position to improve positioning accuracy.

(3) GSM antenna to be installed in non-metallic surfaces, and be careful to minimize the shielding of electromagnetic signals of automotive metal casing. Otherwise prone to running in the process of frequent dropped calls, slow speed of transmitting information, the communication module is easily damaged.

(4) for the first time the installation is complete, the terminal must be a power-off restart to ensure that the vehicle terminal is completely normal.

2. GPS antenna installed to achieve the best positioning results?

GPS antenna mounted horizontally, the guarantee to receive the satellite signal.

3. What of GSM antenna

GSM antenna must be installed in non-metallic surfaces, and pay attention to minimize the shielding of electromagnetic signals of automotive metal casing. GSM antenna function is to receive and transmit radio signals. The GSM antenna is accidentally installed on a metal surface, the emission efficiency becomes very low, making the host internal communication module easily damaged. Other manifestations: GPRS is easy to frequently dropped calls, information transfer speed slows down.

4. The host used for some time suddenly can not boot, re-power can not be restored to normal.

Failure Analysis: host normal power needs two conditions, first, the power cord to power; second line of the ACC power.

Main reasons:

(1) power is not connected, or the fuse has blown.

(2) the ACC line no voltage. If the ACC is no electricity, the host does not boot.

(3) ground off the lead host for the power-on. The host shell in the design and the negative power supply is insulated, even if the shell is a good tower of iron, but the ground is not connected, the host is not working correctly.

(4) the host due to a wiring error or excessive voltage to burn required Depot Repair.